

# Hatchery Unit and Six Sigma Methodology

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## INTRODUCTION

### Poultry Sector

The population of the world is growing every year at an enormous rate. Continuous efforts are being taken to fulfill the basic facilities for a healthy life. The focus is to satisfy the food requirements for better and healthier food. Previously, poultry products like eggs and chicken were considered as agricultural products. There was poultry in the backyard for eggs and chicken on a small scale. Nowadays, the poultry products are accepted as a food item worldwide as the nutritive value of the poultry products is good. So, the eggs and chicken are gaining popularity as a healthy food. The poultry products are available at a reasonable price. Thus, poultry products are in more demand because of healthy quality food and low price. The processed food items from chicken are also becoming more popular all over the world. Also, there are dynamic changes in the urban lifestyle and food habits of the human and the per capita consumption of egg and poultry products has increased. To meet the increasing consumer demands, there is a need to enhance the production of good quality poultry products. Thus the poultry sector has huge scope to grow and market potential in developing as well as developed countries all over the world. The poultry sector has more opportunities for economic growth. So, with the idea of business, the poultry sector is becoming the poultry industry for economical profits. (Baines, 2004; Qualman, 2018).

The poultry sector is the most organized sector in animal agriculture and the fastest-growing sector in the Indian agricultural system. The poultry sector helps the agriculture system to rise with improved per capita income and economy rate. India is the world's third-largest egg producer and the fourth-largest producer of broiler chicken meat. India exports poultry and poultry meat products to various countries. The good market for poultry in Asia is Japan, Malaysia, Maldives, Indonesia, Singapore, etc. In the last five years, per capita, egg consumption has almost become more than double in India. The per capita poultry meat consumption has become 3.5 kg per annum. As the consumption of poultry product in most of the developed countries is more than 250 eggs and 20 kg chicken per annum, the poultry market is growing with many opportunities. (Chatterjee and Rajkumar, 2015; Hook, 2016).

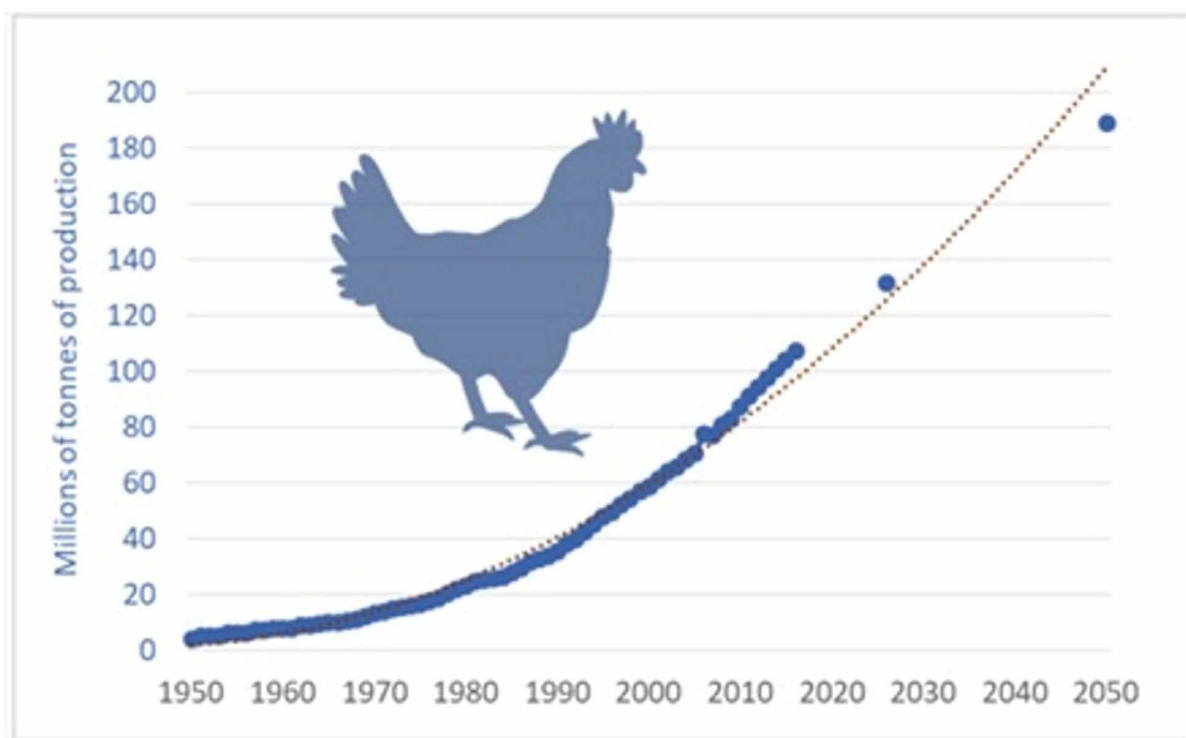
With increasing demands for poultry products, there is a need for expansion and industrialization of this sector. The poultry products provide nutritive values to humans and safe for consumption. The

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poultry sector improves the economic status of rural people. The future of the poultry industry is bright as the new opportunities and discoveries in different sections of the poultry industry are under research with the help of knowledge and challenges of this sector. (Abdul-Careem, 2015; Dhafr, 2006).

The research is going on to improve the production and quality of poultry products. Also, the scientists are working to reduce the contaminants, adulterants and to add more nutritive values to the chicken and other poultry products. With respect to the quality and health of chicken, the research work is going for improvement in the immunity of chicken and the production of healthy poultry products. The researchers are also identifying the new diseases of poultry; their causes, symptoms and treatments. There are some authorities to inspect and regulate the production of quality poultry products. The production in the poultry industry starts with the breeder farming then hatcheries. Once the hatch came out, the feed nutrition and growth of chicks is important. Then processing of poultry products like the collection of eggs and poultry meat processing is carried out. After that, the packaging and distribution of products to the customers are followed. The poultry products can further be converted into processed food and distributed to the end customers. This is the value chain in the poultry industry. (Chatterjee and Rajkumar, 2015). Figure 1 represents the exponential growth of poultry production with projected data.

*Figure 1. Representation of real and projected global poultry production  
(Source: Qualman, 2018).*



## **CHALLENGES AND OPPORTUNITIES IN POULTRY SECTOR (Abdul-Careem, 2015; Hook, 2016).**

The increasing production of poultry products is the need of an hour for over increasing demand of ever growing human population. This arouses some challenges in the poultry sector. These challenges can

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